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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,635	03/21/2005	Marc Laverdiere	2002-29-US	5906
42754	7590	01/18/2008		
Nields & Lemack 176 E. Main Street Suite #5 Westboro, MA 01581			EXAMINER KRISHNAMURTHY, RAMESH	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 01/18/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/520,635

Applicant(s)

LAVERDIERE ET AL.

Examiner

/Ramesh Krishnamurthy/

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 52 is/are pending in the application.
- 4a) Of the above claim(s) 16 - 52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 10 and 13 - 15 is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 and 16 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

This office action is responsive to communications filed October 29, 2007.

**Claims 1 – 52 are pending.**

1. Applicant's election of Group I Invention (Claims 1 – 15) in the reply filed on October 29, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 16 – 52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 29, 2007.

**Claims 1 – 15 remain for further consideration.**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 – 5, 7 – 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (US 6,539,968) in view of Inayama et al. (US 6,584,999).

White et al. discloses a fluid flow control apparatus, comprising: a proportional fluid control valve (40) having a fluid inlet and a fluid outlet; a solenoid type proportional control device (43) in communication with said proportional fluid control valve for modulating said proportional fluid control valve; a frictional flow element (56) having a frictional flow element fluid inlet in fluid communication with said fluid outlet of said proportional fluid control valve and having a frictional flow element fluid outlet spaced from said frictional flow element fluid inlet, said frictional flow element creating a pressure drop between said frictional flow element fluid inlet and frictional flow element fluid outlet; means for measuring said pressure drop (46, 48); a controller (70) in communication with said pressure drop measuring means and with said a solenoid type proportional control device (43) for controlling the flow of fluid through said proportional fluid control valve in response to said measured pressure drop.

The patent to White et al. discloses the claimed invention with the exception of explicitly disclosing the solenoid type proportional control device to comprise a pneumatic valve.

Inayama et al. teaches the use of a pneumatic proportional control valve (76, 78) for controlling a proportional fluid control valve for the purpose of providing a self-contained flow control device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the pneumatic proportional control valve taught by Inayama et al in place of the a solenoid type proportional control device (43) of White et al. for the purpose of providing a self-contained flow control device. It should be noted that such a combination merely involves substituting one known actuator for similar art-recognized actuator.

Regarding the limitation of temperature sensor, White et al. does disclose a temperature sensor (78) that would be utilized in computing the proper flow through the valve and thus in controlling the valve to provide a desire flow therethrough.

In regard to the helical flow coil restrictor recited in claim 14, it is noted that such a restrictor is well-known in the art and its use is a design choice that neither provides any new and/or unexpected result nor solves any stated problem. The combination of White et al. and Inayama et al. would work equally well with such a flow restrictor.

The combination of White et al. and Inayama et al. necessarily performs the method recited in claims 9, 10, 13 and 14 in its usual and normal operation.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of White et al. and Inayama et al. as applied to claims 1 – 5, 7 – 10, 13 and 14 above, and further in view of McLoughlin et al. (US 6,348,098).

The combination of White et al. and Inayama et al. as set forth above, discloses the claimed invention with the exception of explicitly disclosing a suckback valve in pneumatic communication with the pneumatic proportional control valve.

McLoughlin et al. discloses a flow arrangement comprising a suckback valve (10) in pneumatic communication with a pneumatic proportional control valve for the purpose of providing a precise, reproducible dispensing of the fluid.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the combination of White et al. and Inayama et al. a suckback valve in pneumatic communication with the pneumatic proportional control valve for the purpose of providing a precise, reproducible dispensing of the fluid, as evident from McLoughlin et al.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of White et al. and Inayama et al. as applied to claims 1 – 5, 7 – 10, 13 and 14 above, and further in view of Balazy et al. (US 6,152,162).

The combination of White et al. and Inayama et al. as set forth above, discloses the claimed invention with the exception of explicitly disclosing a means for regulating the fluid pressure of the fluid entering the first fluid inlet.

Balazy et al. discloses a means (20) for the purpose of regulating the fluid pressure of the fluid entering the first fluid inlet.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the combination of White et al. and Inayama et al. a means for regulating the fluid pressure of the fluid entering the first fluid inlet, as evident from Balazy et al.

8. Claims 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 - 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson, can be reached on (571) 272 - 4887. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 - 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*/Ramesh Krishnamurthy/*  
Ramesh Krishnamurthy  
Primary Examiner  
Art Unit 3753